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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/530,033

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EXAMINER

DANG, HUNG Q

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/530,033	Applicant(s) TAKAKUWA ET AL.	
	Examiner Hung Q. Dang	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed 04/01/2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Nonfunctional descriptive material that does not constitute a statutory process, machine, manufacture or composition of matter and should be rejected under 35 U.S.C. Sec. 101. Certain types of descriptive material, such as music, literature, art, photographs, and mere arrangements or compilations of facts or data, without any functional interrelationship is not a process, machine, manufacture or composition of matter. USPTO personnel should be prudent in applying the foregoing guidance. Nonfunctional descriptive material may be claimed in combination with other functional descriptive multi-media material on a computer-readable medium to provide the necessary functional and structural interrelationship to satisfy the requirements of 35 U.S.C. Sec. 101. The presence of the claimed nonfunctional descriptive material is not necessarily determinative of nonstatutory subject matter. For example, a computer that recognizes a particular grouping of musical notes read from memory and upon recognizing that particular sequence, causes another defined series of notes to be played, defines a functional interrelationship among that data and the computing processes performed when utilizing that data, and as such is statutory because it implements a statutory process.

Claims 1-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-8 recite "an information record medium" comprising video information, sub-video information, predetermined part coordinate information, and sub-video control information, which are an arrangement of pure data and which do not impart functionality to a computer or computing device, and is thus considered nonfunctional descriptive material. Such nonfunctional descriptive material, in the absence of a functional interrelationship with a computer, does not constitute a statutory process, machine, manufacture or composition of matter and is thus non-statutory per se.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data Structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims 1-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows.

Claims 1-8 recite "an information record medium". However, the claims do not define a computer- readable information record medium and is thus non-statutory for that reason (i.e., "when functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" - Guidelines Annex IV). The examiner suggests amending the claim to embody functional descriptive data on "computer-readable information record medium" or equivalent in order to make the claim statutory. Any amendment to the claim would be commensurate with its corresponding disclosure.

Claims 16-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 16-18 recite, "a computer program." However, it appears that such would reasonably be interpreted by one of ordinary skill in the art as software, per se. This subject matter is not limited to that which falls within a statutory category of invention because it is not limited to a process, machine, manufacture, or a composition of matter. Software does not fall within a statutory category since it is clearly not a series of steps or acts to constitute a process, not a mechanical device or combination of mechanical devices to constitute a machine, not a tangible physical article or object which is some form of matter to be a product and constitute a manufacture, and not a composition of two or more substances to constitute a composition of matter.

Claim 19 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 19 recites, “a data structure.” However, it appears that such would reasonably be interpreted by one of ordinary skill in the art as abstract idea, per se. This subject matter is not limited to that which falls within a statutory category of invention because it is not limited to a process, machine, manufacture, or a composition of matter. An abstract idea does not fall within a statutory category since it is clearly not a series of steps or acts to constitute a process, not a mechanical device or combination of mechanical devices to constitute a machine, not a tangible physical article or object which is some form of matter to be a product and constitute a manufacture, and not a composition of two or more substances to constitute a composition of matter.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Saeki et al. (US Patent 6,067,400).

Regarding claim 1, Saeki et al. disclose an information record medium (Fig. 4; column 10, lines 1-17) comprising: video information to indicate a main video (Fig. 6; column 10, line 65 – column 11, line 13) ; sub-video information to indicate a sub-video (Fig. 10; column 10, line 65 – column 11, line 6; column 11, lines 18-24), the sub-video at least partially displayable over the main video (Fig. 12; column 11, lines 1-6; Fig. 35; Fig. 36; column 25, lines 30-39); predetermined part coordinate information to designate

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coordinates of a predetermined part included in the sub-video, in a coordinate system defined with respect to the sub-video ("start X-Y coordinates" and "end X-Y coordinates" in Fig. 14; column 15, lines 21-34); and sub-video control information including: coordinates-before-movement information to indicate coordinates of a sub-frame before a movement in the coordinate system, the sub-frame being at least an area of the sub-video ("start X-Y coordinates" and "end X-Y coordinates" in Fig. 14; column 15, lines 21-34), and coordinates-after-movement information to indicate coordinates of the sub-frame after n-th movement (n is a natural number equal to or more than 1) in the coordinate system ("start X-Y coordinates" and "end X-Y coordinates" in Fig. 14; column 14, lines 38-44; column 15, lines 21-34, 42-46; column 19, lines 63-67; column 20, lines 26-30; column 21, lines 17-20; Fig. 30; Fig. 31; Fig. 33; *the sub-frame corresponds to the area that gets high-lighted*).

Regarding claim 2, Saeki et al. also disclose the predetermined part is a button video part (Fig. 14; column 15, lines 21-34), and the predetermined part coordinate information is button position information to indicate coordinates of the button video part ("start X-Y coordinates" and "end X-Y coordinates" in Fig. 14; column 15, lines 21-34).

Regarding claim 3, Saeki et al. also disclose the sub-video control information further includes first button status information to indicate in which status a button, which is indicated by the button video part before the movement of the sub-frame, is among predetermined kinds of preset button status (*corresponding to the state in which an unselected button is not selected and highlighted by the user moving the arrow key* in column 19, lines 43-56, column 15, lines 42-51; "selected-determined flag" in Fig. 14).

Regarding claim 4, Saeki et al. also disclose the sub-video control information further includes second button status information to indicate in which status a button, which is indicated by the button video part after the n-th the movement of the sub-frame, is among predetermined kinds of preset button status (*corresponding to the state in which an previously unselected button gets selected and highlighted by the user moving the arrow key* in column 19, lines 43-56, column 15, lines 42-51; "selected-determined flag" in Fig. 14; column 20, lines 8-13).

Regarding claim 5, Saeki et al. also disclose the sub-video control information further includes button command information to define a button command to be executed in a case that the button is operated (Fig. 14; column 20, lines 18-41).

Regarding claim 6, Saeki et al. also disclose high light information to define how to control a high light display for the button video part (Fig. 13; Fig. 14; column 19, lines 57-67; column 22, lines 50-56; column 23, lines 1-19, 41-48).

Regarding claim 7, Saeki et al. also disclose the high light information to define how to control the high light display defines which display mode is used to perform the high light display among predetermined kinds of preset display mode (Fig. 13; Fig. 14; column 19, lines 57-67; column 22, lines 50-56; column 23, lines 1-19, 41-48, "*predetermined kinds of preset display mode*" are "*highlighted*" or "*not highlighted*"), depending on the button status among predetermined kinds of preset button status of a button displayed on the main video (column 19, line 48 – column 20, line 13; column 20, lines 26-30).

Regarding claim 8, Saeki et al. also disclose a sub-video information set comprises the sub-video information and the predetermined part coordinate information (Fig. 14), and the main video information (Fig. 8), the sub-video information set (Fig. 14), and the sub-video control information (Fig. 13) are divided into predetermined packets (Fig. 8; Fig. 9; Fig. 10; Fig. 11) and multiplexed (Fig. 6; Fig. 7), and further streamed into a video stream comprising the divided main video, a sub-video stream comprising the divided sub-video information set and a control information stream comprising the divided sub-video control information (Fig. 6; Fig. 7).

Claim 9 is rejected for the same reason as discussed in claim 1 above.

Claim 10 is rejected for the same reason as discussed in claim 1 above.

Regarding claim 11, Saeki et al. disclose an information reproduction apparatus for reproducing the information record medium according to claim 1 as discussed above (column 17, lines 30-43), said apparatus comprising: a reproduction device for reproducing the video information (column 17, lines 40-43), the sub-video information (column 19, lines 7-12; Fig. 12; Fig. 35), the predetermined part coordinate information (column 19, line 52 – column 20, line 21; Fig. 12) and the sub-video control information (column 19, lines 32-47); a display output device capable of displaying the reproduced sub-video information over the reproduced video information (Fig. 35; column 25, lines 30-39); a control device for controlling the reproduction device and the display output device to display (“reproduction control unit 937” in Fig. 22; column 24, line 60 - column 25, line 25), before the movement of the sub-frame, the predetermined part within the sub-frame before the movement after the predetermined part is subjected to a

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predetermined kind of processing on the basis of the reproduced predetermined part coordinate information, while displaying the sub-frame before the movement over the main video on the basis of the coordinates-before-movement information included in the reproduced sub video control information (using “start X-Y coordinates” and “end X-Y coordinates” in Fig. 14; column 15, lines 21-34; *the action of moving corresponds to the action of users moving the arrow keys to select a button* in column 15, lines 42-46; column 19, lines 43-62), and to display, after the movement of the sub-frame, the predetermined part within the sub-frame after the movement after the predetermined part is subjected to a predetermined kind of processing on the basis of the reproduced predetermined part coordinate information, while displaying the sub-frame after the movement over the main video on the basis of the coordinates-after-movement information included in the reproduced sub-video control information (*using “start X-Y coordinates” and “end X-Y coordinates”* in Fig. 14; column 14, lines 38-44; column 15, lines 21-34, 42-46; column 19, lines 63-67; column 20, lines 26-30; column 21, lines 17-20; Fig. 30; Fig. 31; Fig. 33; *the action of moving corresponds to the action of users moving the arrow keys to select a button* in column 15, lines 42-46; column 19, lines 43-62; *the sub-frame corresponds to the area that gets high-lighted*).

Regarding claim 12, Saeki et al. also disclose the predetermined part is a button video part (Fig. 14; column 15, lines 21-34); the predetermined part coordinate information is button position information to indicate coordinates of the button video part (“start X-Y coordinates” and “end X-Y coordinates” in Fig. 14; column 15, lines 21-34); the information record medium further comprises high-light information to define how to

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control a high-light display for the button video part (Fig. 13; Fig. 14; column 19, lines 57-67; column 22, lines 50-56; column 23, lines 1-19, 41-48), the reproduction device further reproduce the high-light information (Fig. 13; Fig. 14; column 19, lines 57-67; column 22, lines 50-56; column 23, lines 1-19, 41-48), and the control device controls the reproduction device and the display output device to perform the high-light display as the predetermined kind of processing for the button video part, on the basis of the reproduced high-light information (Fig. 13; Fig. 14; column 19, lines 57-67; column 22, lines 50-56; column 23, lines 1-19, 41-48).

Claim 13 is rejected for the same reason as discussed in claim 11 above.

Claim 14 is rejected for the same reason as discussed in claims 9 and 11 above.

Claim 15 is rejected for the same reason as discussed in claims 9 and 11 above.

Claim 16 is rejected for the same reason as discussed in claim 9 above.

Claim 17 is rejected for the same reason as discussed in claim 11 above.

Claim 18 is rejected for the same reason as discussed in claim 14 above.

Claim 19 is rejected for the same reason as discussed in claim 1 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is (571)270-1116. The examiner can normally be reached on IFT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hung Q Dang/
Examiner, Art Unit 2621

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621